Zixuan Liang

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Education

Bern University of Applied Sciences — **Bern, Switzerland**
M.Sc. in Computer Science. Advisor: Prof. Jürgen Vogel. GPA: 5.5/6.0 — *09/2017–01/2019*

Zhejiang University — **Hangzhou, China**
B.Eng. in Electronic & Information Engineering). GPA: 3.89/4.0 — *09/2011–06/2015*

Work Experience

Lonza — **Visp, Switzerland**
Data Analyst Intern — *05/2018–01/2019*

Responsibilities include improving, developing the Master Data management process and maintaining the Master Data quality. Improving the Master Data management process efficiency with scripting languages. Built a user-friendly chatbot that is online 24/7 for the purpose of training new employees and handling SAP request inquiries. Visualizing Master Data with interactive dashboard and different kinds of data charts to help managers make more informed decisions.

RTBAsia — **Shanghai, China**
Software Engineer — *09/2015–08/2017*

Research and development work related to machine learning and deep learning, including model design and optimization for neural networks, transfer learning, feature extraction, stochastic optimization and so on. Built Brand Safety System to protect advertisers on demand-side platforms against websites with inappropriate content (e.g. pornography, terrorism). Demo: . Trained state-of-the-art convolutional neural networks in face recognition (e.g. hypersphere embedding, code:) and image classification (e.g. Inception-ResNet) achieving 95%+ accuracy.

Notable Projects

Practical Convolutional Neural Network — **Bern, Switzerland**
An Open-Source Handbook — *10/2017*

It summarizes my understanding and experience of convolutional neural networks. My goal of writing this handbook is to share it with the community and help others train better deep learning models.

Open-Ended Chatbot — **Bern, Switzerland**
Master Specialization Project — *09/2017-01/2018*

In order to overcome current limitations of dialogue systems (e.g. unsuitable optimization criterion, generic responses, difficult to incorporate world knowledge), implement knowledge-guided conditional variational autoencoder model that enables integration of expert knowledge. Introduce an auxiliary bag-of-word loss function for generating more diverse responses.

Image Captioning in Chinese — **Bern, Switzerland**
AI Challenger Competition — *09/2017-12/2017*

Automatically generate captions in Chinese to describe images based on Neuraltalk2 and PyTorch (code:). Improvement compared to Neuraltalk2 includes: train-validation-test splitting technique, preprocessed features, ResNet architecture and ensemble models.

Skills

- **Programming Languages:** Python, JavaScript, Java, C, C++, SQL, Ruby
- **Machine Learning Tools:** scikit-learn, TensorFlow, PyTorch, Keras
- **Research Tools:** OpenCV, SciPy, NumPy, pandas, matplotlib, NLTK, D3.js, Git, LaTex

Awards

- Outstanding Graduates of Zhejiang University (2015)
- National Endeavor Scholarship (2012, 2013, 2014)
- Scholarship for Excellence in Research and Innovation (2014)
- Scholarship for Outstanding Students (2012, 2013, 2014)

References

Contact information available upon request

- Jürgen Vogel, Professor, Data Science Research Group, Bern University of Applied Sciences
- Fredy Hug, Head of Global Master Data Management at Lonza

About Me

My nationality is Chinese. I speak three languages: Cantonese (native), Mandarin (native) and English (C1).